

Claims:

1. A method for producing friction linings by pressing a pourable mass (14), wherein the mass (14) is pre-compressed and subsequently the pre-compressed mass (14) is conveyed to a press (4) and there is subjected to a final compression in a press mold (11) having at least one cavity (11'), characterized in that the pourable mass (14) is pre-compressed already in the press mold (11) against at least one carrier plate (9), and the pre-compressed mass (14) that has been pre-compressed against the carrier plate (9) is conveyed directly in the press mold (11) to the press (4) where it is finally compressed.

2. A method according to claim 1, characterized in that the carrier plate(s) (9) and the press mold (11) are put on a base plate (10) before the pourable mass (14) is introduced into the press mold (11).

3. A method according to claim 1 or 2, characterized in that a pre-compression mold (13) is put on the press

mold (11) before the pourable mass (14) is introduced into the press mold (11).

4. A method according to claim 3, characterized in that the pre-compression mold (13) is lifted off the press mold (11) after pre-compression of the pourable mass (14) and before the press mold (11) with the pre-compressed mass (14) is further conveyed.

5. A method according to claim 1 or 2, characterized in that the pourable mass (14) is introduced into the press mold (11) under pre-compression with the help of a screw (15').

6. A method according to any one of claims 1 to 5, characterized in that an intermediate layer, preferably of graphite, phenol resin, metal chips, glass fibers or the like, in particular in the form of a mat, is applied to the carrier plate (9) before the pourable mass (14) is introduced into the press mold (11).

7. A method according to claim 6, characterized in that pourable intermediate layer material is applied as

an intermediate layer on the carrier plate before the introduction of the pourable mass (14) and, preferably, is pre-compressed.

8. A method according to any one of claims 1 to 7, characterized in that, before the final compression of the mass (14), a closing plate (17) is put on the mass (14) that has been pre-compressed in the press mold.

9. A method according to any one of claims 1 to 8, characterized in that the pre-compressed mass (14) is subjected to several, preferably independently adjustable, press procedures for the final compression.

10. A method according to claim 8 or 9, characterized in that the base plate (10), the press mold (11), and the closing plate (17) are automatically separated from each other after completion of the friction lining.

11. An arrangement for producing friction linings by pressing a pourable mass (14), including a device (3) for pre-compression of the mass (14) and a press (4) with a press mold (11) having at least one cavity (11')

for final compression of the mass (14), the press (4) following the pre-compression device (3) via a conveying unit (7), characterized in that the pre-compression device (3) has a receiving means for the press mold (11), and in that the conveying unit (7) is adapted for transportation of the press mold (11) with the mass (14) pre-compressed against at least one carrier plate (9) therein, and the press (4) is adapted for direct final compression of the pre-compressed mass (14) in the press mold (11) against the carrier plate (9).

12. An arrangement according to claim 11, characterized in that a displaceably mounted pre-compression mold (13) is provided as the receiving means.

13. An arrangement according to claim 12, characterized in that different pre-compression molds (13) are provided which can be selectively chosen e.g. by means of a rotation device (3').

14. An arrangement according to any one of claims 11 to 13, characterized in that the height of the press mold (11) substantially corresponds to the height of

the finished friction lining.

15. An arrangement according to any one of claims 12 to 14, characterized in that a plunger (15) compressing the pourable mass (14) in the pre-compression mold (13) is provided for pre-compressing.

16. An arrangement according to any one of claims 12 to 15, characterized in that a reservoir (2) including a displaceable chute (2'') is provided for introducing the pourable mass (14) into the pre-compression mold (13).

17. An arrangement according to any one of claims 11 to 14, characterized in that an axially shiftable screw which is rotatably mounted in a housing is provided as said pre-compression device (3).

18. An arrangement according to any one of claims 11 to 17, characterized in that an intermediate layer compression device (3'') is provided for compression of a pourable intermediate layer material upstream of the pre-compression device (3), viewed in conveying direc-

tion.

19. An arrangement according to claim 18, characterized in that the intermediate layer compression device (3'') substantially corresponds to the construction of the pre-compression device (3) according to any one of claims 11 to 16.

20. An arrangement according to any one of claims 11 to 19, characterized in that a base plate (10) is provided for supporting and carrying the press form (11) as well as, optionally, the carrier plate(s) (9) during transportation.

21. An arrangement according to any one of claims 11 to 20, characterized in that the press form (11) has an associated closing plate (17) which is provided to be put onto the pre-compressed mass (14) contained in the press mold (11).

22. An arrangement according to claim 21, characterized in that the side of the closing plate (17) facing the pre-compressed mass (14) has a plane surface (18).

23. An arrangement according to claim 21, characterized in that the side of the closing plate (17) facing the pre-compressed mass (14) comprises at least one plunger-like projection which enters the cavity (11') in the press mold (11) during pressing.

24. An arrangement according to claim 22 or 23, characterized in that the connecting region between the press mold (11) and the carrier plate (9) is sealed by the application of force on the press mold (11) during final pressing.

25. An arrangement according to any one of claims 12 to 24, characterized in that several, preferably independently adjustable, press stations (21) are provided for final compression.

26. An arrangement according to any one of claims 12 to 25, characterized in that a device (5) for automatically separating the press mold (11) from the base plate (10) and from the closing plate (17) is provided.

27. An arrangement according to claim 26, characterized in that the device (5) includes vertically shiftable rods (22) which have at least three portions (23, 23', 23'') of different diameters, starting from the portion (23'') having the smallest diameter at the freely cantilevering end of the rods (22), so that the rods (22), in their upwardly shifted position, extend through corresponding passage openings in the base plate (10) and in the press mold (11), respectively, with the portion(s) (23', 23'') of smaller diameters, whereby a selective lifting of the closing plate (17) and of the press mold (11) from the base plate (10) is achieved.

28. An arrangement according to claim 27, characterized in that retention arms (27) are provided for maintaining the closing plate (17) and the press mold (11) in their lifted positions.